CLAIMS:

1.   Information carrier on which an information signal is recorded, the signal representing picture information intended to be displayed on a picture screen, the picture information comprising video information of at least a single video program and control information for displaying various versions of the video program, characterized in that the control information comprises path information indicative of one or more versions of video information sections to be reproduced in a linked fashion, the path information being indicative of sections to be reproduced consecutively.

2.   Information carrier as claimed in Claim 1, characterized in that the video information of a video program is subdivided into two portions, the first portion comprising the video information of a basic version and the second portion comprising additional video information, and a version comprising at least one section of the additional video information.

3.   Information carrier as claimed in Claim 1, characterized in that the sections are addressable and in that the path information comprises addresses of sections to be displayed consecutively.

4.   Information carrier as claimed in Claim 1, characterized in that the path information comprises playtime information.

5.   Information carrier as claimed in Claim 1,
characterized in that the path information comprises track
information indicative of a subdivision into tracks, while the
tracks are numbered independently for each video program.

6.   Information carrier as claimed in Claim 1,
characterized in that path information for displaying each
version is recorded in an information carrier area that can be
located.

7.   Information carrier as claimed in Claim 1,
characterized in that path information is recorded on the
information carrier near to entry points, while playback is
possible from the entry points without the use of previous
picture information.

8.   Information carrier as claimed in Claim 7,
characterized in that the information carrier is subdivided into
addressable sectors and in that the path information near to an
entry point comprises address information relative to the
respective entry point.

9.   Information carrier as claimed in Claim 7,
characterized in that the video program is subdivided into tracks
and in that the path information near to an entry point comprises
address information indicative of the beginning of the next track
in the respective version.

10. Information carrier as claimed in Claim 7, characterized in that the path information near to an entry point comprises address information of video information to be displayed beforehand.

11. Information carrier as claimed in Claim 7, characterized in that the path information near to an entry point comprises time code information indicative of the playtime from the beginning of the respective version.

12. Device for reading an information carrier on which an information signal is recorded, the signal representing picture information intended to be displayed on a picture screen, the picture information comprising video information of at least a single video program and control information for displaying various versions of the video program, the device comprising first means for recovering the picture information and control means for selectively reproducing the video program in response to the control information, characterized in that the control information comprises path information indicative of one or more versions of video information sections to be reproduced in linked fashion, the path information being indicative of sections to be reproduced consecutively, and in that the device comprises second means for recovering the path information and in that the control means are adapted for consecutively reproducing the video program sections in response to the path information.

13. Device as claimed in Claim 12, characterized in that the path information comprises for each path the playtime information of the respective version and in that the device comprises means for displaying the playtime in response to the path information.

14. Device as claimed in Claim 12, characterized in that the path information for displaying each version is recorded in a locatable area of the information carrier and in that the second means are adapted for locating the area.

15. Device as claimed in Claim 12, characterized in that path information is recorded on the information carrier near to entry points, while playback is possible from the entry points without the use of previous picture information, and in that the second means are adapted for recovering the path information near to entry points.

16. Device as claimed in Claim 15, characterized in that the path information near to an entry point comprises address information of video information to be displayed beforehand, and in that the control means are adapted for displaying the picture information in reverse direction in response to said addresses.

17. Device as claimed in Claim 15, characterized in that the path information near to an entry point comprises time code information indicative of the playtime from the beginning of

the respective version, and in that the first means are adapted
for displaying the picture information in response to the time
code information.

18. Device for providing an information carrier on
which an information signal is recorded, the signal representing
picture information intended to be displayed on a picture screen,
the picture information comprising video information of at least
a single video program and control information for displaying
various versions of the video program, the device comprising
coding means for coding the picture information and recording
means for recording the information signal on the information
carrier, characterized in that the control information comprises
path information indicative of one or more versions of video
information sections to be shown in linked fashion, the path
information being indicative of sections to be displayed
consecutively and in that the device comprises generator means
for generating the path information and means for adding the path
information to the picture information.

19. Method of transmitting picture information
intended for being displayed on a picture screen via an
information carrier on which an information signal representing
picture information is recorded, this picture information
comprising video information of at least one video program and
control information for displaying various versions of the video

program, characterized in that the control information comprises path information indicative of one or more versions of video information sections to be shown in a linked fashion, the path information being indicative of sections to be displayed consecutively.

20. A method for displaying one of a plurality of versions of a program recorded on an information carrier, said method comprising the steps of:

displaying to a user a rating information regarding at least two versions from said plurality of versions;

receiving from said user a selection of one of said plurality of versions;

reproducing from said information carrier said one of said plurality of versions for display to the user.

21. The method according to claim 20 wherein said step of displaying rating information comprises the steps of:

displaying to the user a plurality of country identification information; and

receiving from the user a selection of a country corresponding to one of said plurality of country identification information.

22. The method according to claim 21 wherein said step of displaying rating information further comprises the steps of:

displaying to the user a plurality of ratings corresponding to said country; and

receiving from the user a selection of at least one of said plurality of ratings.

23. The method according to claim 21 further comprising the steps of:

displaying to the user a selected rating information regarding one of said plurality of versions if said selected rating information is consistent with said selection of at least one of said plurality of ratings.

24. The method according to claim 20 wherein said step of displaying rating information further comprises the steps of:

displaying to the user a plurality of ratings; and

receiving from the user a selection of at least one of said plurality of ratings.

25. The method according to claim 20 wherein said step of displaying rating information comprises the step of displaying to a user a rating information regarding each version from said plurality of versions.

26. The method according to claim 20 wherein said step of displaying rating information comprises the steps of:

accessing at least one preselected user rating preference; and

displaying to the user a preselected rating information regarding one of said plurality of versions if said preselected rating information is consistent with said prestored user rating preference.

27. An apparatus for displaying one of a plurality of versions of a program recorded on an information carrier, said apparatus comprising:

means for displaying to a user a rating information regarding at least two versions from said plurality of versions;

means for receiving from said user a selection of one of said plurality of versions;

means for reproducing from said information carrier said one of said plurality of versions for display to the user.

28. The apparatus according to claim 27 wherein said means for displaying rating information comprises:

means for displaying to the user a plurality of country identification information; and

means for receiving from the user a selection of a country corresponding to one of said plurality of country identification information.

29. The apparatus according to claim 28 wherein said means for displaying rating information further comprises:

means for displaying to the user a plurality of ratings corresponding to said country; and

means for receiving from the user a selection of at least one of said plurality of ratings.

30. The apparatus according to claim 28 further comprising:

means for displaying to the user a selected rating information regarding one of said plurality of versions if said selected rating information is consistent with said selection of at least one of said plurality of ratings.

31. The apparatus according to claim 27 wherein said means for displaying rating information further comprises:

means for displaying to the user a plurality of ratings; and

means for receiving from the user a selection of at least one of said plurality of ratings.

32. The apparatus according to claim 27 wherein said means for displaying rating -information comprises means for displaying to a user a rating information regarding each version from said plurality of versions.

33. The apparatus according to claim 27 wherein said means for displaying rating information comprises:

means for accessing at least one preselected user rating preference; and

means for displaying to the user a preselected rating information regarding one of said plurality of versions if said

preselected rating information is consistent with said prestored user rating preference.

34. A method for recording a plurality of versions of a program on an information carrier, said plurality of versions comprising a plurality of program sections, said method comprising the steps of:

encoding said plurality of program sections to produce a plurality of encoded program sections;

appending an address information to each of said plurality of encoded program sections;

appending a version information to each of said plurality of encoded program sections; and

recording said plurality of encoded program sections, including said address information and said version information, on said information carrier.

35. The method according to claim 34 wherein said step of encoding comprises the steps of:

intra-coding said plurality of program sections to produce I-frames; and

predictive coding said plurality of program sections to produce P-frames.

36. The method according to claim 34 wherein said step of appending an address information comprises the step of appending a start address information and an end address

information to each of said plurality of encoded program

sections.

37.   The method according to claim 36 wherein said step

of appending an address information further comprises the step of

appending a next section start address information and a previous

section last entry point information to each of said plurality of

encoded program sections.

38.   The method according to claim 37 wherein said step

of appending an address information further comprises the step of

appending an adjacent entry point address information to each of

said plurality of encoded program sections.

39.   The method according to claim 34 further

comprising the step of appending a time code information to each

of said plurality of encoded program sections.

40.   The method according to claim 39 wherein said step

of appending a time code information comprises the step of

appending time code information regarding a timing of each of

said plurality of encoded program sections relative to a leading

end of at least one of said plurality of versions.

41.   The method according to claim 34 further

comprising the step of appending a track number information to

each of said plurality of encoded program sections.

42.   The method according to claim 41 wherein said step

of appending a track number information comprises the step of

appending track number information regarding a track indication

of each of said plurality of encoded program sections relative to

a leading end of at least one of said plurality of versions.

43. The method according to claim 34 wherein said step

of appending a version information comprises the step of

appending at least one path number to each of said plurality of

encoded program sections.

44. The method according to claim 34 wherein said step

of appending a version information comprises the step of

appending at least one rating information to each of said

plurality of encoded program sections.

45. The method according to claim 34 wherein said step

of appending a version information comprises the step of

appending at least one version identification information to each

of said plurality of encoded program sections.

46. The method according to claim 34 wherein said step

of appending a version information comprises the step of

appending at least one path descriptor information to each of

said plurality of encoded program sections.

47. The method according to claim 34 wherein said step

of recording comprises the steps of:

recording a first completed access unit immediately

prior to a jump point on said information carrier; and

recording a second completed access unit immediately following said jump point on said information carrier.

48. The method according to claim 34 wherein said step of recording comprises the steps of:

recording a first completed access unit immediately prior to each respective jump point on said information carrier; and

recording a second completed access unit immediately following said each respective jump point on said information carrier.

49. The method according to claim 34 wherein said step of recording comprises the steps of:

recording a first plurality of access units on a first side of a jump point; and

recording a second plurality of access units on a second side of said jump point without recording an access unit which requires for decoding one of a prediction and a reference with respect to one of said first plurality of access units.

50. The method according to claim 34 wherein one of said plurality of versions comprises a single program section on said information carrier.

51. Apparatus for recording a plurality of versions of a program on an information carrier, said plurality of versions

comprising a plurality of program sections, said apparatus comprising:

means for encoding said plurality of program sections to produce a plurality of encoded program sections;

means for appending an address information to each of said plurality of encoded program sections;

means for appending a version information to each of said plurality of encoded program sections; and

means for recording said plurality of encoded program sections, including said address information and said version information, on said information carrier.

52.   The apparatus according to claim 51 wherein said means for encoding comprises:

means for intra-coding said plurality of program sections to produce I-frames; and

means for predictive coding said plurality of program sections to produce P-frames.

53.   The apparatus according to claim 51 wherein said means for appending an address information comprises means for appending a start address information and an end address information to each of said plurality of encoded program sections.

54.   The apparatus according to claim 53 wherein said means for appending an address information further comprises

means for appending a next section start address information and a previous section last entry point information to each of said plurality of encoded program sections.

55. The apparatus according to claim 54 wherein said means for appending an address information further comprises means for appending an adjacent entry point address information to each of said plurality of encoded program sections.

56. The apparatus according to claim 51 further comprising means for appending a time code information to each of said plurality of encoded program sections.

57. The apparatus according to claim 56 wherein said means for appending a time code information comprises means for appending time code information regarding a timing of each of said plurality of encoded program sections relative to a leading end of at least one of said plurality of versions.

58. The apparatus according to claim 51 further comprising means for appending a track number information to each of said plurality of encoded program sections.

59. The apparatus according to claim 58 wherein said means for appending a track number information comprises means for appending track number information regarding a track indication of each of said plurality of encoded program sections relative to a leading end of at least one of said plurality of versions.

60. The apparatus according to claim 51 wherein said means for appending a version information comprises means for appending at least one path number to each of said plurality of encoded program sections.

61. The apparatus according to claim 51 wherein said means for appending a version information comprises means for appending at least one rating information to each of said plurality of encoded program sections.

62. The apparatus according to claim 51 wherein said means for appending a version information comprises means for appending at least one version identification information to each of said plurality of encoded program sections.

63. The apparatus according to claim 51 wherein said means for appending a version information comprises means for appending at least one path descriptor information to each of said plurality of encoded program sections.

64. The apparatus according to claim 51 wherein said means for recording comprises:

means for recording a first completed access unit immediately prior to a jump point on said information carrier; and

means for recording a second completed access unit immediately following said jump point on said information carrier.

65. The apparatus according to claim 51 wherein said means for recording comprises:

means for recording a first completed access unit immediately prior to each respective jump point on said information carrier; and

means for recording a second completed access unit immediately following said each respective jump point on said information carrier.

66. The apparatus according to claim 51 wherein said means for recording comprises:

means for recording a first plurality of access units on a first side of a jump point; and

means for recording a second plurality of access units on a second side of said jump point without recording an access unit which requires for decoding one of a prediction and a reference with respect to one of said first plurality of access units.

67. The apparatus according to claim 51 wherein one of said plurality of versions comprises a single program section on said information carrier.

68. A method for reproducing one of a plurality of versions of a program recorded on an information carrier, said plurality of versions comprising a plurality of program sections, said method comprising the steps of:

reproducing from said information carrier a first program section that includes a plurality of version information and a plurality of address information;

detecting in said first program section a version information corresponding to said one of said plurality of versions and an address information corresponding to said version information; and

reproducing from said information carrier a second program section according to said address information.

69.   The method according to claim 68 further comprising the steps of:

detecting in said second program section a second version information corresponding to said one of said plurality of versions and a second address information corresponding to said second version information; and

reproducing from said information carrier a third program section according to said second address information.

70.   The method according to claim 68 further comprising the step of receiving from a user a selection indicating said one of said plurality of versions.

71.   The method according to claim 68 wherein said version information comprises a version identification information.

72. The method according to claim 68 wherein said version information comprises a rating information.

73. The method according to claim 68 wherein said version information comprises an entry packet information.

74. The method according to claim 68 wherein said version information comprises a path descriptor information.

75. The method according to claim 68 further comprising the step of displaying to a user said first program section and said second program section without a perceptible interruption in display.

76. The method according to claim 68 wherein said step of detecting comprises the step of detecting an entry point.

77. The method according to claim 76 wherein said entry point is an entry sector.

78. The method according to claim 76 wherein said entry point is an entry packet.

79. The method according to claim 76 wherein said entry point is a path descriptor area.

80. The method according to claim 76 wherein said address information comprises a next section start address information.

81. The method according to claim 68 wherein each of said plurality of program sections includes a time code

information and wherein said step of reproducing a first program section comprises the step of reproducing a first time code information and wherein said step of reproducing a second program section comprises the step of reproducing a second time code information.

82. The method according to claim 68 wherein each of said plurality of program sections includes a track number information and wherein said step of reproducing a first program section comprises the step of reproducing a first track number information and wherein said step of reproducing a second program section comprises the step of reproducing a second track number information.

83. An apparatus for reproducing one of a plurality of versions of a program recorded on an information carrier, said plurality of versions comprising a plurality of program sections, said apparatus comprising:

means for reproducing from said information carrier a first program section that includes a plurality of version information and a plurality of address information;

means for detecting in said first program section a version information corresponding to said one of said plurality of versions and an address information corresponding to said version information; and

means for reproducing from said information carrier a second program section according to said address information.

84. The apparatus according to claim 83 further comprising:

means for detecting in said second program section a second version information corresponding to said one of said plurality of versions and a second address information corresponding to said second version information; and

means for reproducing from said information carrier a third program section according to said second address information.

85. The apparatus according to claim 83 further comprising means for receiving from a user a selection indicating said one of said plurality of versions.

86. The apparatus according to claim 83 wherein said version information comprises a rating information.

87. The apparatus according to claim 83 further comprising means for displaying to a user said first program section and said second program section without a perceptible interruption in display.

88. The apparatus according to claim 83 wherein said means for detecting comprises means for detecting an entry point.

89. The apparatus according to claim 83 wherein each of said plurality of program sections includes a time code

information and wherein said means for reproducing a first

program section comprises means for reproducing a first time code

information and wherein said means for reproducing a second

program section comprises means for reproducing a second time

code information.

90. The apparatus according to claim 83 wherein each

of said plurality of program sections includes a track number

information and wherein said means for reproducing a first

program section comprises means for reproducing a first track

number information and wherein said means for reproducing a

second program section comprises means for reproducing a second

track number information.

91. A method for reproducing one of a plurality of

versions of a program recorded on an information carrier, said

plurality of versions comprising a plurality of program sections,

said method comprising the steps of:

reproducing from said information carrier a version

information corresponding to said one of a plurality of versions

and an address information corresponding to said version

information; and

reproducing from said information carrier a program

section according to said address information.

92.   The method according to claim 91 wherein said step of reproducing comprises the step of reproducing a table of contents information.

93.   The method according to claim 92 further comprising the step of reproducing from said information carrier a plurality of program sections according to said address information.